



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,343	04/14/2005	Koji Korechika	JP25004PCTUS	6308
21254 7590 11/01/2007 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			EXAMINER ROCCA, JOSEPH M	
			ART UNIT 3616	PAPER NUMBER
			MAIL DATE 11/01/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,343

Applicant(s)

KORECHIKA, KOJI

Examiner

Joseph Rocca

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 5-6 and 14-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. **Claims 7-9** are rejected under 35 U.S.C. 102(b) as being anticipated by Lindstrom (U.S. 5,568,938).

With respect to **claim 7**, Lindstrom discloses an inflator bag (Element 40) for a vehicle occupant restraining apparatus being able to expand and develop by a high-pressure gas filled in said inflator bag and is capable of restraining a vehicle occupant by being expanded and developed, comprising: a hollow body being opened at its both sides and having a cross-sectional structure in which both sides of said hollow body are dented in a U-shaped manner toward an inside of a tube-shaped body in one diameter direction out of two diameter directions (Figs 5 and 6) intersecting at right angles on said hollow body and both sides of said hollow body are crushed in a manner so as to be in a plane state in another diameter direction (Figs. 5 and 6), and, wherein a bag main body is formed by blocking opened portions of said hollow body on both sides with end face plates (Figs. 5 and 6, Elements 45 and 46 (end plates)) and said bag main body is crushed in a manner so as to be in a flat state on both sides in said another diameter direction (Figs. 2 and 3, Element 24).

With respect to **claim 8**, Lindstrom additionally discloses that by denting, in a U-shaped manner, portions on both sides of said tube-shaped body toward its inside portions in one diameter direction out of two diameter directions intersecting at right angles on said tube-shaped body and, at a same time, by crushing portions on both sides of said tube-shaped body in a manner so as to be in a plane state in another

diameter direction, a hollow body being opened at both ends and having a cross-sectional structure in which said tube-body is crushed and wherein a bag main body is formed by blocking opened portions of said hollow body with end face plates using both sides on which said hollow body is dented in an inside direction and said end face plates as gore portions and; wherein said bag main body is folded in a manner so as to be a flat state by further denting portions on both sides having been dented toward an inside direction of said hollow body and serving as said gore portions and said end face plates and, at a same time, by further crushing portions on both sides in another diameter direction. Furthermore, applicant should note that the method of forming the device is not germane to the issue of patentability of the device itself.

With respect to **claim 9**, each of said end face plates of Lindstrom includes a shrunk portion formed so as to be placed in an inside of said hollow body and to develop at a time when said hollow body is filled with said high-pressure gas (Figs. 5-6), in as much as the shrunk portion is defined by applicant.

Regarding the limitation of the end plates, the applicant should note that a plate as broadly defined is no more than: "a smooth flat thin piece of material." See, Merriam-Webster's Online Dictionary, at <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=plate>, last visited at (10/21/2007). Applicant should note that Elements 45 and 46, would constitute "smooth flat thin pieces of material" when the airbag is fully inflated.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, 12-13, and 25-26** are rejected under 35 U.S.C. 103(a) as unpatentable by Kowalski (U.S. 6,158,766) in view of Lalonde (U.S. 5,697,640).

Kowalski discloses an inflator bag for a vehicle occupant restraining apparatus being able to expand and develop by a high-pressure gas filled in said inflator bag and is capable of restraining a vehicle occupant by being expanded and developed, comprising: a box-shaped bag main body (Element 24) including gore portions (side portions of Element 24) on surrounding side faces to ensure a height of said box-shaped bag main body,, wherein, in said gore portions, a folded line to be folded toward an inside of said box-shaped bag main body is formed in an intermediate portion in a height direction of each of said gore portions (Fig. 5, Element 24), which is used to allow said gore portions to be folded (Figs. 1-5), wherein said box-shaped bag main body is folded in a manner so as to be in a flat state when each of said gore portions is folded in a manner to form a valley line along said folded line (Figs 2 and 3).

With respect to **claim 2**, said box-shaped bag main body of Kowalski, is so constructed as to have a hermetically sealed structure by blocking a bottom face of said

Art Unit: 3616

box-shaped bag main body (Element 24) being opposite to a ceiling plate (Element 26) with a bottom plate (Element 28; see also Col. 2, Lines 12-19).

Regarding **claim 3**, said box-shaped bag main body and said bottom plate of Kowalski are integrally formed (Figs. 2 and 3; Col. 2, Lines 12-19) in as much as the plate and main body form one unit after being sealed together as described in the specification (Col. 2, Lines 12-19).

With respect to **claim 12**, said box-shaped bag main body of Kowalski, comprises an angular-box shaped bag main body (Figs. 2-5, Element 24) note angles formed by sides and gore portions of element 24.

Regarding **claim 13**, said folded portion of Kowalski comprises a triangular folded portion (Figs. 2,3, and 5, folded portion of Element 24).

Kowalski does not specifically disclose an overlaid and folded portion is formed in an end of said gore portions on said surrounding side faces with corner portions of said box-shaped bag main body being sandwiched between one surrounding side face and another surrounding side face adjacent to said one surrounding side face wherein said gore portions are folded in an overlaid manner in said overlaid and folded portions at a same time when another gore portion on another surrounding side face is folded.

Lalonde discloses an overlaid and folded portion is formed in an end of said gore portions on said surrounding side faces with corner portions of said box-shaped bag main body being sandwiched between one surrounding side face and another surrounding side face adjacent to said one surrounding side face wherein said gore portions are folded in an overlaid manner in said overlaid and folded portions at a same

time when another gore portion on another surrounding side face is folded (Fig. 2, Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kowalski such that it included an overlaid and folded portion is formed in an end of said gore portions on said surrounding side faces with corner portions of said box-shaped bag main body being sandwiched between one surrounding side face and another surrounding side face adjacent to said one surrounding side face wherein said gore portions are folded in an overlaid manner in said overlaid and folded portions at a same time when another gore portion on another surrounding side face is folded, in view of the teachings of Lalonde, so as to improve packaging and inflation characteristics of the airbag.

Regarding **claims 25 and 26**, said ceiling plate is slanted with respect to the bottom plate, at least with respect to the slanted portions of the top and bottom plates of Kowalski (Figs. 2-3, Elements 26-28). Additionally, when the bag develops the ceiling plate develops in a slant direction toward the bottom plate.

6. **Claims 4 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kowalski (U.S. 6,158,766) in view of Lalonde (U.S. 5,697,640) as applied above and further in view of Enders et al. (U.S. 2004/0007856 A1). Kowalski in view of discloses all of the limitations of claim 4 except that said box-shaped bag main body of Kowalski specifically comprises a resin sheet or a metal sheet. Nevertheless, it is old and well known in the art to construct a main body portion of an airbag from a

Art Unit: 3616

resin sheet or a metal sheet. Additionally, Enders teaches that it is known to use metal sheets in the formation of an air bag. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a box-shaped bag main body that included a resin sheet or a metal sheet, in view of the teachings of Enders, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Moreover, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the inflator bag to utilize said box-shaped bag main body that specifically comprises a resin sheet or a metal sheet based on the teachings of Enders et al. (U.S. App. 2004/007856 A1), so as to create a main body portion that is able to rapidly dissipate heat created by inflation gasses while additionally being strong enough and light weight enough to allow for reliable inflation.

With respect to **claim 11**, Enders additionally discloses the use of an inflator bag used for restraining a leg portion of a seated vehicle occupant which is placed in a lower portion of an instrument panel of a vehicle and expands and develops at a time of being filled with a high-pressure gas at time of sharp reduction of speed of a vehicle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kowalski such that it was placed on the lower portion of an instrument panel of a vehicle, so as to utilize the device to protect the knees of an occupant.

7. **Claims 10 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kowalski (U.S. 6,158,766) in view of Lalonde (U.S. 5,697,640) as

Art Unit: 3616

applied above and further in view of Brantman (U.S. 5,695,242). The combination of Kowalski in view of Lalonde does not disclose that said bag restrains a hip portion of a vehicle occupant, which is mounted in a front lower portion of a seat cushion in a vehicle, and that it expands to raise a front seat face of said seat cushion to prevent a vehicle occupant who is seated from being moved forward. Brantman, discloses a vehicle seat comprising: an inflator bag that is used for restraining a hip portion of a vehicle occupant which is mounted in a front lower portion of a seat cushion in a vehicle and expands and develops by being filled with a high-pressure gas at a time of sharp reduction of speed of a vehicle to raise a front seat face of said seat cushion which prevents a vehicle occupant being seated on a seat from being moved forward (Figs. 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Kowalski in view of Lalonde, such that the airbag of Kowalski was placed in a vehicle seat, in view of the teachings of Brantman, thereby creating a compact and easy to store means for protecting a seated occupant from sliding forward in a vehicles seat in the event of an accident. Moreover, with respect to claim 24, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Kowalski in view of Lalonde, and further in view of Brantman, such that the combination comprised an overlaid portion and folded portion formed on a front side of the main body that is thicker than said overlaid and folded portion formed on a rear side of the main body, based on the fact that it is necessary to have a thicker portion at the front of the bag, as is shown

Art Unit: 3616

by Brantman, (Figs. 1 and 2), so as to properly restrain a vehicle occupant who is seated in the seat.

Allowable Subject Matter

8. Claim 5-6 and 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or disclose an inflator bag having all of the limitations of claim 5, and further comprising: both sides of a tube-shaped body being blocked with end face plates and side face plates serving as said longitudinal side of said tube-shaped body and said end face plates make up gore portions.

Response to Arguments

10. Applicant's arguments with respect to claims 1-4, 10-13, and 25-26 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments with respect to the rejection of Claims 7-9 as anticipated by Lindstrom have been fully considered but they are not persuasive. The arguments are not persuasive because as discussed above, the main body does in fact disclose "a bag main body that comprises opened portions of said hollow body on both sides with end face plates blocking the opened portions" based on the broad definition of the word plates and understanding of applicants disclosure.

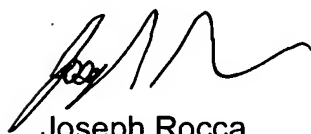
Conclusion

Art Unit: 3616

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Rocca whose telephone number is 571-272-5191. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joseph Rocca
Patent Examiner
AU-3616



PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600